

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER PFEUFFER, HANS-JOACHIM LIPPOLD,
MARKUS FRONHFER, and HANS LEIBOLD

Appeal No. 1999-0960
Application No. 08/785,437

ON BRIEF

Before CALVERT, STAAB, and JENNIFER D. BAHR, Administrative
Patent Judges.

CALVERT, Administrative Patent Judge.

DECISION ON APPEAL

This an appeal from the final rejection of claims 1 to 16, all the claims in the application.

The claims on appeal are drawn to a filter element, and are reproduced in the appendix of appellants' brief.

Appeal No. 1999-0960
Application No. 08/785,437

The references applied in the final rejection are:¹

| | | |
|------------------------|-----------|----------|
| Wright et al. (Wright) | 3,216,578 | Nov. 9, |
| 1965 | | |
| Zanma et al. (Zanma) | 60-137414 | Jul. 22, |
| 1985 | | |
| (Japanese Kokai) | | |
| Okuma et al. (Okuma) | 60-193518 | Oct. 2, |
| 1985 | | |
| (Japanese Kokai) | | |

The appealed claims stand finally rejected on the following grounds:

(1) Claims 1 to 15, unpatentable over Wright, under 35 U.S.C. § 103(a).

(2) Claim 16, unpatentable over Wright in view of Okuma and Zanma, under 35 U.S.C. § 103(a).

Rejection (1)

Claim 1 reads:

1. A filter element, that can be sealingly secured in position in a filter housing, comprising:
an accordion fold pack having fold backs and a flow-off side and;
a latticed protective mask, the protective mask being sealingly joined to all the fold

¹ Copies of translations of the two Japanese references, prepared by the PTO, are forwarded to appellants herewith.

Appeal No. 1999-0960
Application No. 08/785,437

backs of [sic: of the] accordion fold pack on
the flow-off side along substantially an entire
length of the fold backs so that the fold backs
are sealingly joined to the protective mask
along substantially their entire length.

Wright discloses a filter having an accordion pleated filter element 1. On one or both sides of the filter, a capping 6 of adhesive such as epoxy resin is applied to the edges 4 of the pleats (called "fold backs" in appellants' application), and then screens 2, 3 are adhered to the capping. The capping 6 serves the dual purpose of anchoring the screens to the pleat edges and of protecting the edges 4 against backfire gases and abrasion (col. 2, lines 10 to 17, and col. 3, line 59, to col. 4, line 22), while the screens prevent distortion of the filter and maintain uniform spacing between the pleat edges (col. 2, lines 40 to 45).

On page 6 of the answer, the examiner seems to take the position that the language of claim 1 is broad enough to be readable on Wright, because "the claim does not say that the protective mask has to be continuously adhered at every point to the fold backs." We do not agree with this position. In the Wright filter, as shown in Fig. 2, the screen wires are only adhered to the pleat edges 4 where they cross the edges, rather than running along the lengths of the edges. Such

construction does not in our view meet the requirement of claim 1 (or of claim 13, the other independent claim on appeal) that the mask is joined to the fold backs "along substantially an entire length of the fold backs," since in Wright the mask (screen) is joined to the fold backs (edges) only at spaced points, not along substantially their entire length, as claimed.

The examiner also seems to believe that claim 1 is readable on Wright because "the fold backs [of Wright] are statistically bound to directly align with the wires of the protective mask at numerous locations along the surface of the protective mask" (answer, page 6), noting that in Fig. 7 some of Wright's edges 4a (fold backs) coincide with the vertical wires of the screen 3a. However, even if some of Wright's screen wires might by chance be positioned to extend along substantially an entire length of the fold backs, that would not meet the recitation in claim 1 that "all the fold backs" are so joined to the mask. Likewise, claim 13 is not readable on Wright because, although that claim does not use the word "all", we consider that, consistent with appellants' disclosure, the claim language

Appeal No. 1999-0960
Application No. 08/785,437

"the fold backs of [the] accordion fold pack" must be interpreted as meaning all the fold backs of the fold pack.

The examiner further finds claim 1 (and claim 13) to be unpatentable over Wright under § 103(a) because (answer, pages 3 and 4):

it would have been obvious to someone of ordinary skill in the art at the time of the invention to align the edges of the protective mask [of Wright] with the fold backs of the filter so that the protective mask is adhesively attached along the entire edge of the plurality of fold backs and so that [the] seal between the filter and the protective mask is amplified in strength. Furthermore, the function of the protective mask

adhesively
attached to
the filter is
the same as
the
applicants, to
extend the
useful life of
the pleated
filter (column
1 lines 37-
38).

Therefore,
attaching the
protective
mask along an
entire length
of the fold
backs would
have been
obvious for
further

Appeal No. 1999-0960
Application No. 08/785,437

protecting the
delicate folds
of the pleats.

"Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000). In the present case, we do not consider that such a showing has been made. As mentioned above, Wright discloses that the purpose of screens 2 and 3 is to prevent distortion of the filter and maintain uniform spacing between the fold backs. There would have been no motivation or suggestion for one of ordinary skill to modify the Wright filter, as proposed by the examiner, by aligning the screen wires along the fold backs in order to protect the fold backs, because in Wright that function is already performed by the capping 6, nor is there any indication that additional strengthening would be desirable.

Accordingly, the rejection of claims 1 and 13, and likewise of claims 2 to 12, 14 and 15 dependent thereon, will not be sustained.

Rejection (2)

Claim 16 reads:

16. The filter element according to Claim 1, further comprising:
an air jet housing, wherein the protective mask has a plurality of slots which correspond to the fold backs of the accordion fold pack, the air jet housing adapted to detachably sealably cover one of the plurality of slots [²] of the protective mask on the flow-off side, and wherein a pressurized fluid may be applied to the air jet housing from the flow-off side to thereby clean a fold back associated with the one of the plurality of slots, the air jet housing being movable to sealingly cover a different one of the plurality of slots of the protective mask.

The additional references, Okuma and Zanma, applied in this rejection, do not overcome the above-discussed deficiencies of Wright with respect to parent claim 1. Rejection (2) therefore will not be sustained.

² This recitation appears to be inconsistent with Fig. 4, where the air jet housing 9 is shown as sealably covering a row of slots 5 across the width of mask 3 and filter 1 (six slots in Fig. 3), rather than just one slot.

Appeal No. 1999-0960
Application No. 08/785,437

Conclusion

The examiner's decision to reject claims 1 to 16 is
reversed.

REVERSED

| | | |
|-----------------------------|---|-----------------|
| IAN A. CALVERT |) | |
| Administrative Patent Judge |) | |
| |) | |
| |) | |
| |) | |
| |) | BOARD OF PATENT |
| LAWRENCE J. STAAB |) | APPEALS |
| Administrative Patent Judge |) | AND |
| |) | INTERFERENCES |
| |) | |
| |) | |
| |) | |
| JENNIFER D. BAHR |) | |
| Administrative Patent Judge |) | |

SLD

Appeal No. 1999-0960
Application No. 08/785,437

RICHARD L. MAYER
KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

Shereece

Appeal No. 1999-0960
Application No. 08/785,437

APJ CALVERT

APJ BAHR

APJ STAAB

REVERSED

Prepared: December 19, 2001